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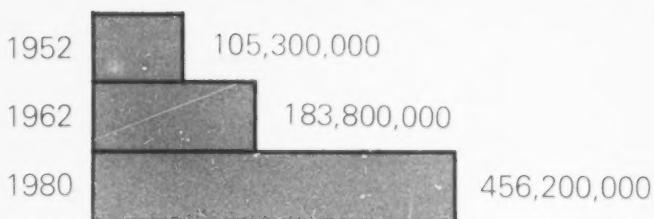
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1.

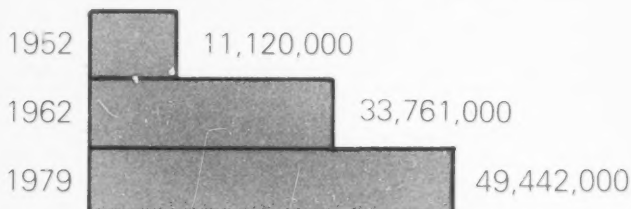
456.2 MILLION RADIOS IN U.S. SOME 50 MILLION SOLD ANNUALLY

SETS IN USE UP 333%

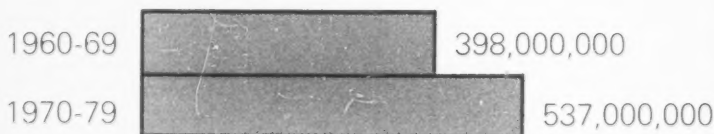


1952 is base because it's year TV became a factor

ANNUAL SET SALES UP 345%



TEN-YEAR SET SALES UP 35%



Consumers spent **\$3,254,000,000**
on Radio sets in 1979

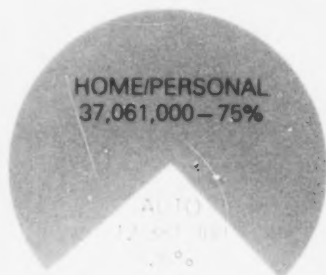
TOTAL RADIO SET SALES MIX

1952



TOTAL 11,120,000

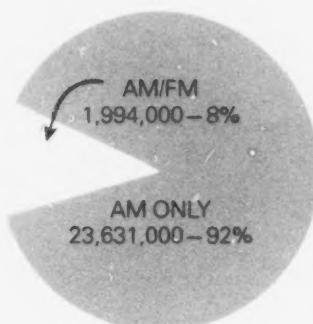
1979



TOTAL 49,442,000

AM-FM SET SALES MIX

1960



TOTAL 25,625,000

1979



TOTAL 49,442,000

COMMERCIAL STATIONS ON THE AIR

1952



TOTAL 2,968

1979

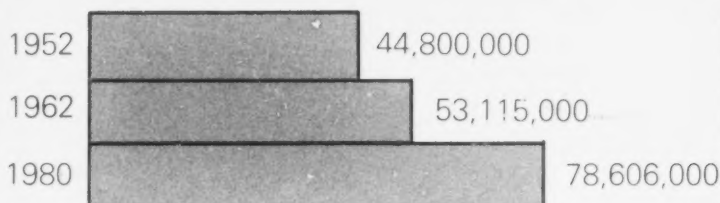


TOTAL 7,714

2.

99% OF HOMES WITH RADIOS

RADIO HOUSEHOLDS UP 75%



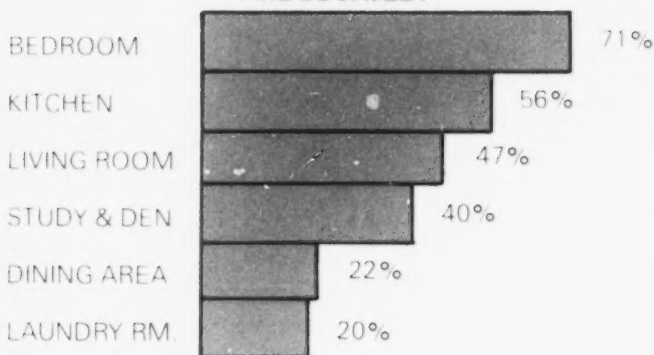
VIRTUALLY EVERY HOME HAS A RADIO ONLY 1.0% OF HOMES WITH NO RADIO

99.0% of all U.S. homes have at least one working order Radio. Average household has **5.7** sets

72% of persons have **4** or more radio sets in their household



WHERE HOME RADIOS ARE LOCATED:



WAKE-UP AND BEDTIME ROLE BUILT IN

60% of all homes are equipped with clock radios, according to latest estimates

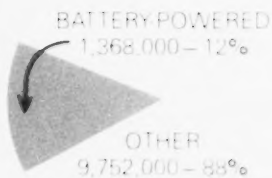
BATTERY SET SALES 1979

15,954,000

67% of 1979 sales were FM or AM FM combinations.

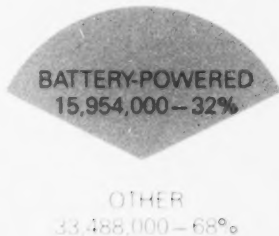
BATTERY SET SALES

1952



TOTAL: 11,120,000

1979

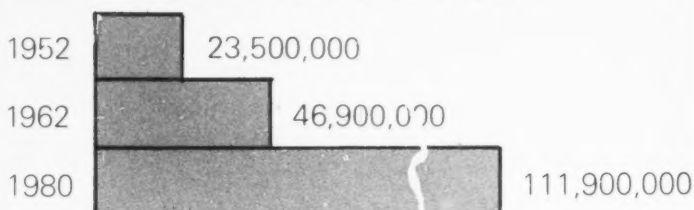


TOTAL: 49,442,000

3.

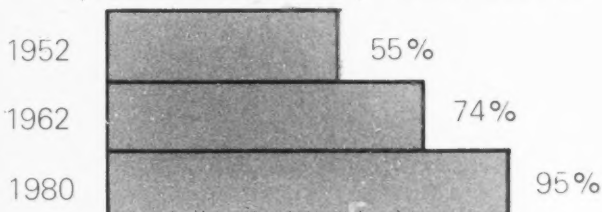
95% OF CARS RADIO EQUIPPED; CAR RADIO REACHES 70% WEEKLY

RADIO SETS IN AUTOS UP 376%



98% of company-owned cars are radio equipped.

PERCENT OF CARS WITH RADIOS: AUTO RADIO NEAR SATURATION POINT



AUTOMOBILES IN CONSTANT USE

86% of commuters get to work by auto.

90% of shopping visits are made by auto.

84% of intercity travel is by auto.

Auto Radio reaches **7** out of **10** adults within the course of a week.

4.

RADIO REACHES 83% IN A DAY; 96% IN A WEEK

RADIO'S CUMULATIVE AUDIENCE REACH Persons 12+



RADIO'S WEEKLY CUMULATIVE AUDIENCE BY PLACE OF LISTENING – PERSONS 12+

Total All Places	96.0%
At Home	89.3%
In Car	69.4%
Other Out of Home	41.0%

SHARE OF RADIO AUDIENCE BY PLACE OF LISTENING

	At Home	In Car	Other Places
Men 18+	46.5%	24.2%	29.3%
Women 18+	69.2	12.9	17.9
Teens 12-17	72.6	13.0	14.4
Persons 12+	60.1	17.6	22.3

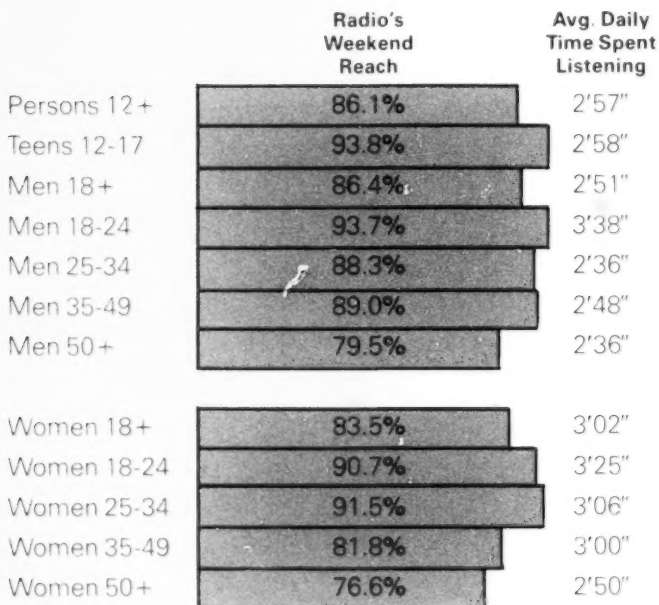
RADIO'S CUMULATIVE AUDIENCE AMONG A RANGE OF DEMOGRAPHIC GROUPS

	Avg. Daily Cume	Weekly Cume Mon.-Sun.	Avg. Daily Time Spent Listening
Persons 12+	82.6%	96.0%	3'27"
Teens 12-17	89.3%	99.7%	2'52"
Men			
18+	83.5%	96.1%	3'32"
18-24	88.3	98.2	4'29"
25-34	87.5	99.6	3'35"
35-49	85.3	98.5	3'32"
50+	76.8	90.9	2'57"
Household income			
\$20,000+	86.0%	97.2%	3'32"
\$15,000-19,999	85.7	97.4	3'28"
\$10,000-14,999	82.5	96.4	3'45"
Under \$10,000	75.9	91.8	3'23"
College-educated	85.5%	96.9%	3'29"
Women			
18+	79.9%	94.8%	3'33"
18-24	87.4	99.1	4'03"
25-34	86.2	99.1	3'45"
35-49	80.7	97.4	3'41"
50+	72.2	88.8	3'07"
Household income			
\$20,000+	81.0%	95.7%	3'24"
\$15,000-19,999	83.0	96.6	3'48"
\$10,000-14,999	82.8	96.0	3'56"
Under \$10,000	74.2	91.5	3'18"
College-educated	84.1%	96.6%	3'32"
Adults In Households Of			
5+ persons	84.5%	97.6%	3'55"
3-4 persons	82.9	97.2	3'30"
1-2 persons	78.8	92.5	3'22"

5.

WEEKEND LISTENING: 3 HOURS PER DAY

REACHES ALMOST 9 OUT OF 10 ON WEEKEND



LISTENING CONSISTENT BY SEASON

Sat.-Sun. 6 AM-Midnight

Persons 12+ Cume

January	85.4%
April-May	84.0%
July-August	82.8%
October-November	83.4%

6.

SUMMER RADIO: HIGH OUT-OF-HOME AUDIENCE

SUMMER RADIO: IT REACHES EVERY AGE GROUP

	Weekly Reach (Mon-Sun. 6AM-Midnight)	Avg. Daily Time Spent Listening
Persons 12 +	95.8%	3'06"
Men 18+	95.9%	3'08"
Men 18-24	96.0%	3'22"
Men 25-34	97.2%	3'12"
Men 35-44	96.2%	2'55"
Men 45-54	96.0%	3'03"
Men 55-64	95.5%	3'11"
Women 18+	95.7%	3'12"
Women 18-24	98.2%	3'23"
Women 25-34	97.4%	2'58"
Women 35-44	96.2%	2'59"
Women 45-54	95.7%	3'20"
Women 55-64	95.7%	3'26"
Teens 12-17	96.6%	2'40"

SUMMER LISTENING BY LOCATION (Persons 12+, Mon.-Fri.)

	In-Home	Out-of-Home
6 AM-Mid.	58.0%	42.0%
6-10 AM 3-7 PM	61.6%	38.4%
10 AM-3 PM	40.8%	59.2%
7 PM-Mid.	76.4%	23.6%

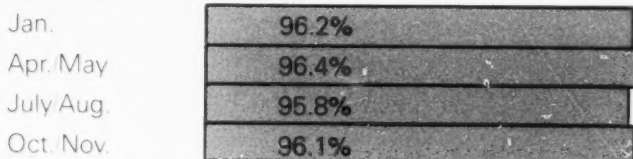
7

RADIO: 96% WEEKLY IN EVERY SEASON

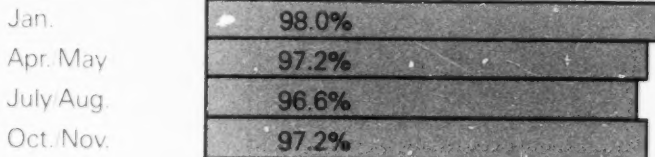
Television audience declines in Spring and Summer. But Radio delivers the same high percentage of listeners every week, regardless of season.

Persons 12+

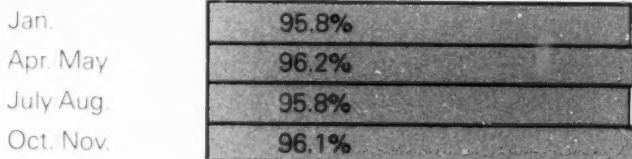
Percent Reached Weekly



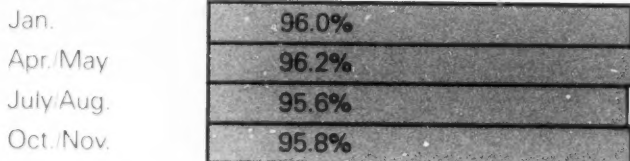
Teens 12-17



Men 18+



Women 18+



8.

RADIO IS MAJOR U.S. NEWS SOURCE

96% of adults are satisfied with what they hear on Radio.

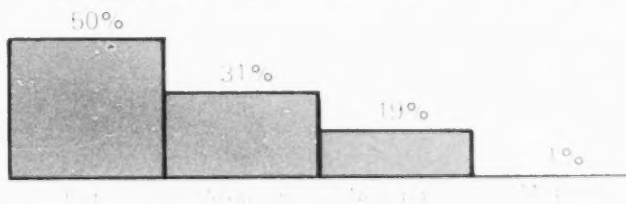
RADIO DELIVERS THE NEWS FIRST IN THE MORNING

	All Adults 18+	Business Executives	College Educated	Household Income \$15,000+
Radio	52%	49%	52%	56%
Tv	20%	8%	16%	16%
Newspapers	21%	42%	28%	25%
All Others	7%	1%	4%	3%

* PRIMARY DAYTIME NEWS SOURCE

	All Adults	Household Income \$15,000+
Radio	46%	52%
Tv	39%	33%
Newspapers	34%	39%
Other People	8%	10%
Magazines	2%	3%

* RADIO TOPS OTHER MAJOR MEDIA AS FIRST NEWS SOURCE IN NORMAL PERIODS



* All figures are based on a survey of 1,000 adults.

9.

RADIO REACHES MORE ADULTS THAN TV OR NEWSPAPERS IN A DAY OR WEEK

RADIO LEADS OTHER MAJOR MEDIA IN DAILY REACH

Adults 18+



RADIO LEADS OTHER MAJOR MEDIA IN WEEKLY REACH

Adults 18+



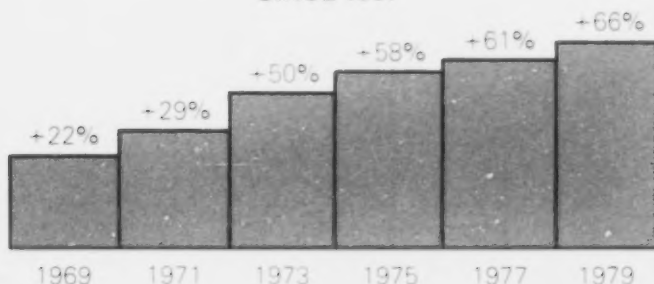
10. RADIO'S AUDIENCE UP 66% SINCE '67

RADIO'S AUDIENCE GROWTH UP 66% (1967-1979)

Persons 12+ Using Radio in Average Quarter Hour

	6AM-Midnight – Monday-Sunday Number	Index
1967	19,126,000	100
1969	23,321,000	122
1971	24,709,000	129
1973	28,741,000	150
1975	30,266,000	158
1977	30,849,000	161
1979	31,730,000	166

PERCENT AUDIENCE GROWTH SINCE 1967



Explanation

Radio's growth trend is compiled from Radio's A- Dimension Audience Research (RADAR) reports which measure Radio listening over a weekly period for the entire country. The basic method employed consists of daily telephone interviews with a sampled person over a 7 day period. For the period 1967-1971, RADAR was conducted by Brand Ratings Research Inc. Since that time RADAR reports have been conducted by Statistical Research, Inc.

11.

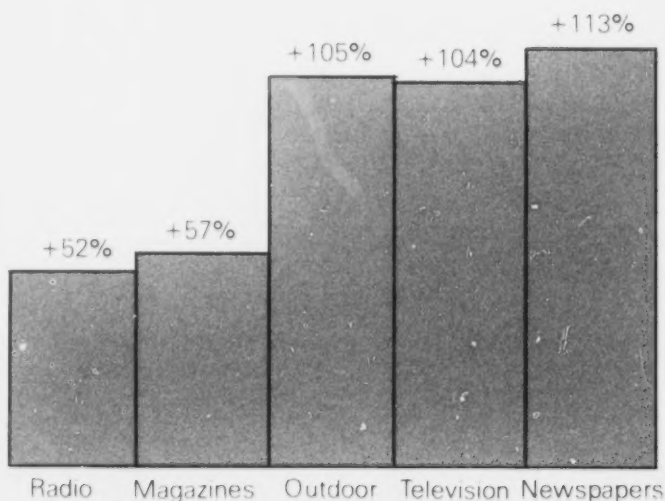
RADIO'S C-P-M UP LEAST OF ALL MEDIA SINCE '67

RADIO'S COST-PER-THOUSAND UP LEAST (1967-1979)

Cost-Per-Thousand Indices

	Radio	Maga- zines	Out- door	TV	News- papers
1967	100	100	100	100	100
1969	100	105	106	107	109
1971	96	112	119	96	118
1973	105	109	136	112	126
1975	112	120	151	123	154
1977	131	133	174	167	183
1979	152	157	205	204	213

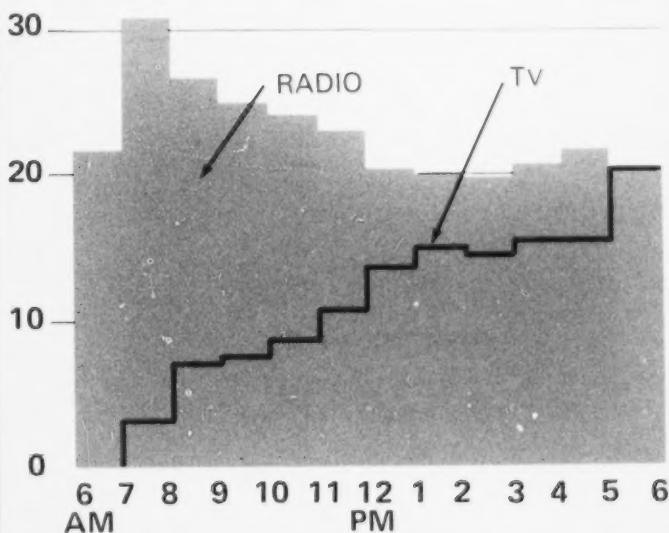
COST-PER-THOUSAND INCREASE (1967-1979)



12.

RADIO-TV COMPARISONS

RADIO LEADS TV THROUGH DAYTIME
Adults 18+, Monday-Friday



AVERAGE DAYTIME RATING: RADIO 73% AHEAD OF TV
Adults 18+, Monday-Friday

Radio

23.7%

TV

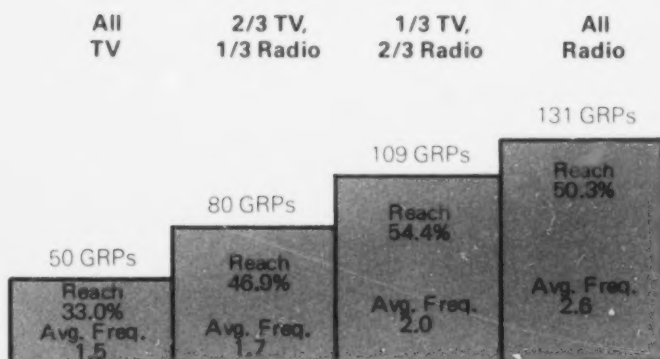
13.7%

+73%

Radio: Average $\frac{1}{4}$ hour (6 AM-6 PM); TV: Average $\frac{1}{2}$ hour (7 AM-6 PM)

Substantial increases in impressions achieved are made as Radio's weekly budget share is increased in a mix with TV

MEN 18-49

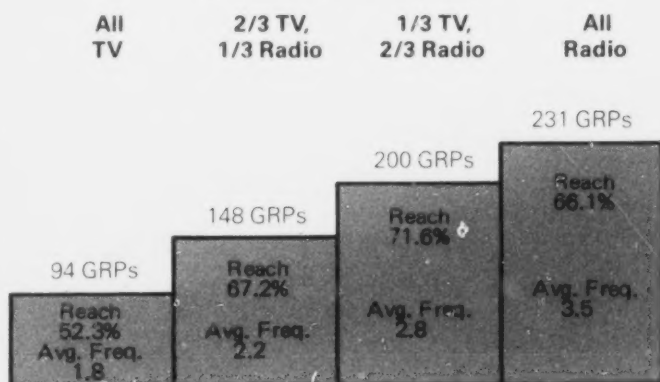


Frequency Distribution – Percent Reached

Strategy	1 or more	2 or more	3 or more	4 or more	5 or more
All TV	33.0%	12.1%	3.5%	1.0%	0.2%
All Radio	50.3	33.0	20.6	12.4	7.2

All budgets equal

UPPER INCOME ADULTS

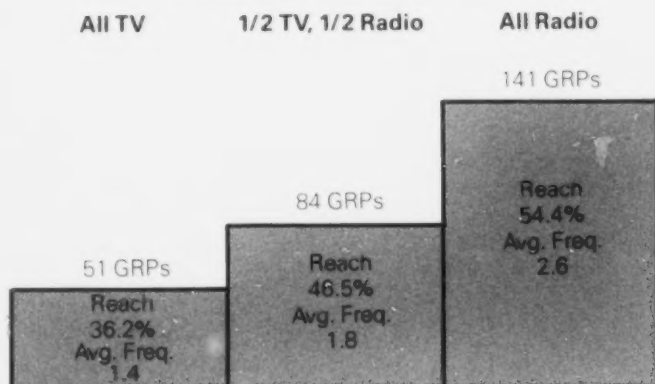


Frequency Distribution – Percent Reached

Strategy	1 or more	2 or more	3 or more	4 or more	5 or more
All TV	52.3%	27.1%	10.1%	3.9%	1.3%
All Radio	66.1	49.2	35.4	25.2	17.9

All budgets equal

WORKING WOMEN 18-49

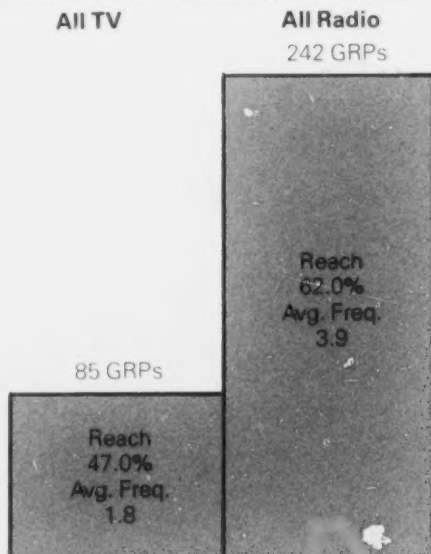


Frequency Distribution - Percent Reached

Strategy	3 or more	4 or more	5 or more
All TV	3.0%	0.6%	0.1%
1/2 TV 1/2 Radio	9.7	4.2	2.0
All Radio	21.4	13.2	8.2

All budgets equal

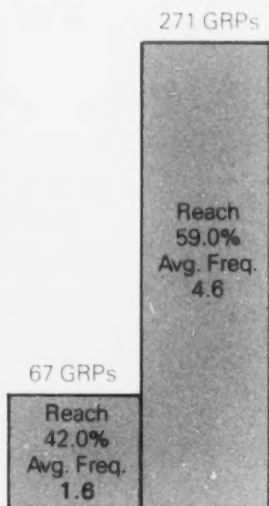
RADIO'S ADVANTAGES OVER TV IN CAMPAIGN TARGETED FOR TEENS 12-17



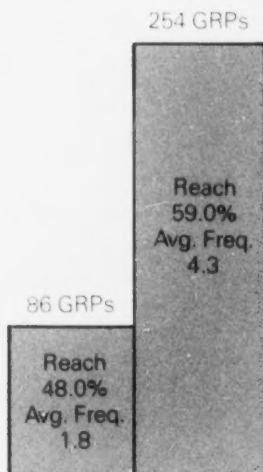
All budgets equal

RADIO'S ADVANTAGES OVER TELEVISION IN ONE WEEK CAMPAIGN TARGETED FOR:

MEN 18-34
All TV All Radio

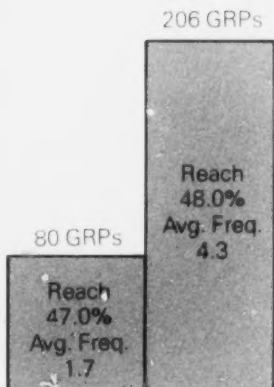


WOMEN 18-34
All TV All Radio

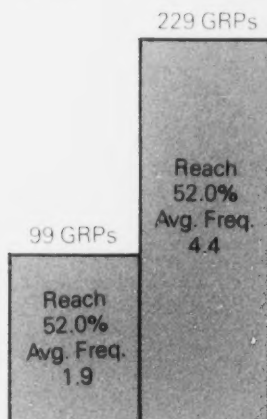


All budgets equal.

MEN 25-54
All TV All Radio

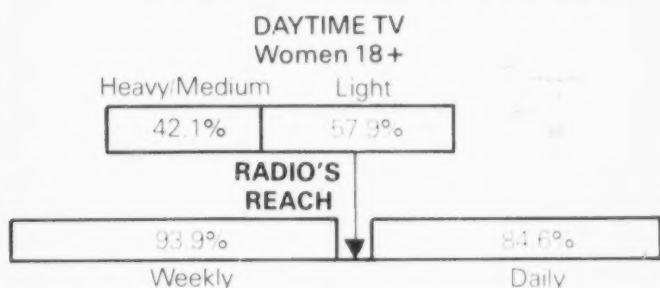


WOMEN 25-54
All TV All Radio



All budgets equal.

RADIO TARGETS THE LIGHT TV VIEWER



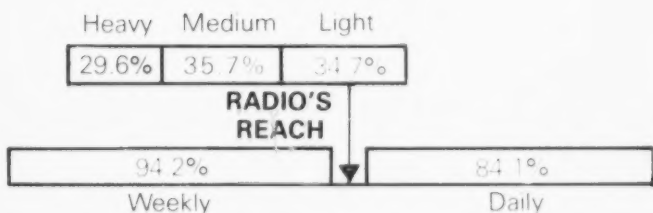
Among those 57.9% of Women 18+ not exposed to daytime TV on the average weekday

• **93.9%** listen to Radio in a week

• **84.6%** listen to Radio in a day

• they average **4 hours 2 minutes** of Radio listening on the average weekday

AFTERNOON/EVENING TV Adults 18+



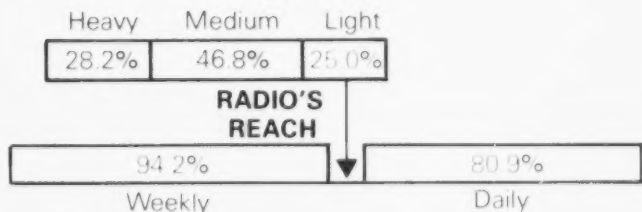
Among those 34.7% of Adults 18+ not exposed to afternoon/evening TV on the average weekday

• **94.2%** listen to Radio in a week

• **84.1%** listen to Radio in a day

• they average **3 hours 54 minutes** of Radio listening on the average weekday

NIGHTTIME TV Adults 18+



Among those 25.0% of Adults 18+ who either don't watch, or watch 1 hour or less, nighttime TV on the average weekday

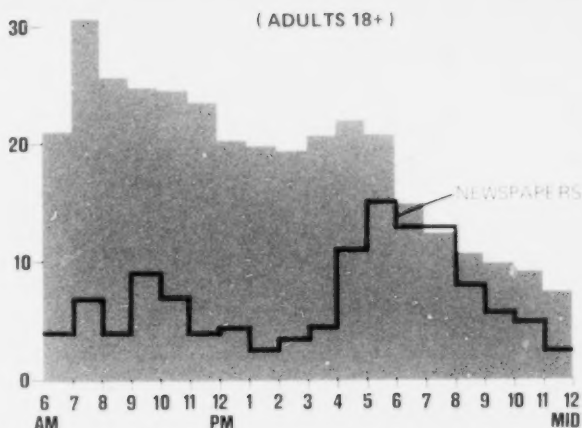
• **94.2%** listen to Radio in a week

• **80.9%** listen to Radio in a day

• they average **3 hours 38 minutes** of Radio listening on the average weekday

13.

RADIO-NEWSPAPER COMPARISONS



AVERAGE ALL-DAY RATING:
RADIO 58% AHEAD OF NEWSPAPERS
 Adults 18+, Mon.-Fri., 6AM:Mid.

Radio
 19.7%

Newspapers

12.5%

+58%

Radio: Avg. 1/4 Hr., Newspapers: Avg. Hr.

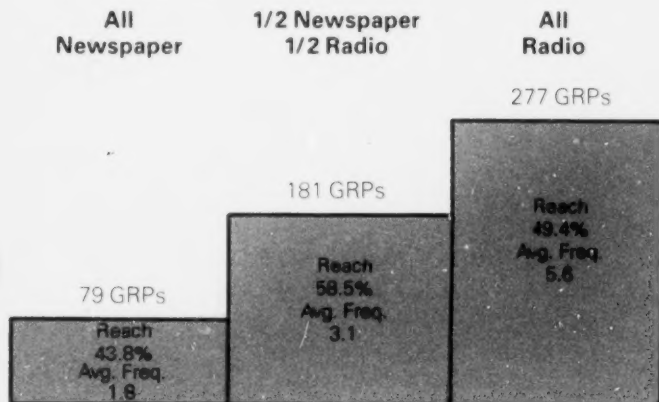
AVERAGE DAILY REACH (Monday-Friday) 1970 vs 1979

	1970	1979	'70-79 Index
Radio	76.5%	84.8%	111
Newspapers	77.6	70.5	91

RADIO-NEWSPAPER SCHEDULES

Substantial gains are made as Radio's weekly budget share is increased in a mix with newspapers.

GROCERY SHOPPERS



Frequency Distribution – Percent Reached

Strategy	1 or more times	2 or more times	3 or more times	4 or more times
All Newspaper	43.8%	28.6%	4.7%	4.0%
All Radio	49.4	38.7	31.3	25.8

All budgets equal

RADIO'S ADVANTAGES OVER NEWSPAPERS IN ONE WEEK CAMPAIGN TARGETED FOR:

MEN 18-34		WOMEN 18-34	
Newspapers	Radio	Newspapers	Radio
22 GRPs	210 GRPs	23 GRPs	201 GRPs
Reach 20%	Reach 50%	Reach 21%	Reach 53%
Avg. Freq. 1.1	Avg. Freq. 4.2	Avg. Freq. 1.1	Avg. Freq. 3.8
MEN 25-54		WOMEN 25-54	
Newspapers	Radio	Newspapers	Radio
29 GRPs	163 GRPs	31 GRPs	185 GRPs
Reach 26%	Reach 43%	Reach 28%	Reach 44%
Avg. Freq. 1.1	Avg. Freq. 3.9	Avg. Freq. 1.1	Avg. Freq. 4.2

All budgets equal

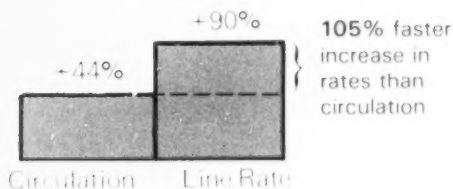
METRO NEWSPAPER CIRCULATION HAS NOT KEPT PACE WITH THE POPULATION... WHILE RATES HAVE RISEN

	Percent Change 1978 vs. 1970	
	Top 20 Markets	Total U.S.
Households	+16%	+20%
Population	+4%	+7%
Circulation	-4%	0%
Cost-per-thousand	+85%	+90%
Line rates	+78%	+90%

WEEKLY NEWSPAPER RATES INCREASING FASTER THAN CIRCULATION

Many weekly papers face problems of rising costs. Consequently, they have raised rates sharply. Rates have increased **105%** faster than circulation since 1970. Here is the national average based on over 7,500 weekly papers.

PERCENT CHANGE 1979 VS. 1970

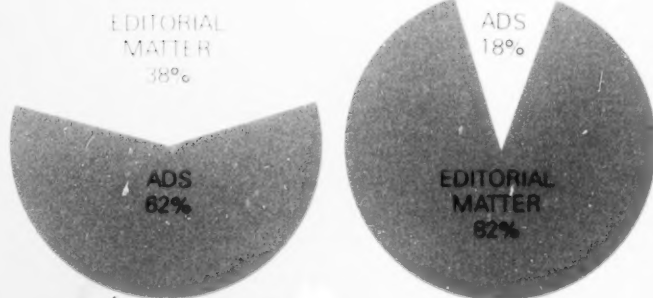


ADS ARE 62% OF PAPERS BUT GET ONLY 18% OF READING TIME

CONTENT

VS.

READING TIME



RADIO - NEWSPAPER DAILY REACH

	Average Daily Reach (Mon.-Fri.)	
	Radio	Newspapers
Sex:		
Men	81%	72%
Women	77	69
Age:		
18-24	87%	62%
25-34	83	65
35-44	84	75
45-54	80	78
18-34	85	64
25-54	82	72
Household Income:		
\$25,000+	85%	82%
\$20,000-24,999	85	77
\$15,000-19,999	82	73
\$10,000-14,999	81	70
under \$10,000	71	60
Location:		
Cities	80%	70%
Suburbs	81	72
Non-metro	75	70
Education:		
Coll. grad. or more	84%	81%
1-3 years coll.	84	74
H.S. grad.	82	73
1-3 years H.S.	77	65
Less	66	58

EVEN FULL-PAGE ADS ARE NOTED BY LESS THAN HALF OF ALL NEWSPAPER READERS

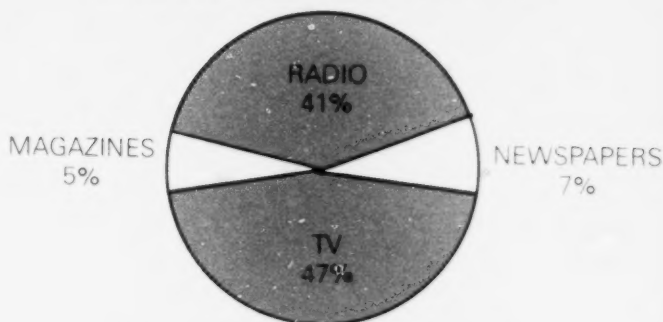
Size of Ad	Size/Cost Index (full page = 100)	Starch "Noted" Readership Scores	
		Men	Women
Full page	100	31%	50%
1/2 page	50	27	33
1/4 page	25	24	29
1/8 page	13	16	25

Note: Advertising media of size of ad & third product category not shown. Shipping and receipt budget reported in Radio.

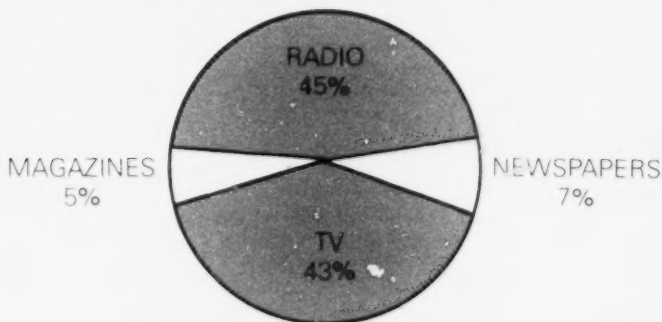
14.

ADULTS SPEND 3 HOURS 32 MINUTES DAILY WITH RADIO

MEDIA SHARE OF MIND
AVERAGE % DISTRIBUTION OF TIME
ADULTS 18+ SPEND WITH 4 MEDIA DAILY



AVERAGE % DISTRIBUTION OF TIME
ADULTS 18-49 SPEND WITH 4 MEDIA DAILY



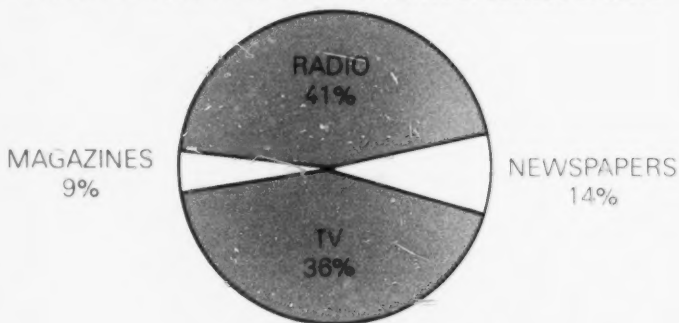
Average Daily Time Spent With Major Media

	Adults 18+	Adults 18-49
Radio	3'32"	3'49"
Television	4'03"	3'40"
Newspapers	34"	34"
Magazines	27"	27"

**RADIO LEADS OTHER MEDIA IN SHARE OF MIND
WITH UPSCALE CONSUMER TARGETS**

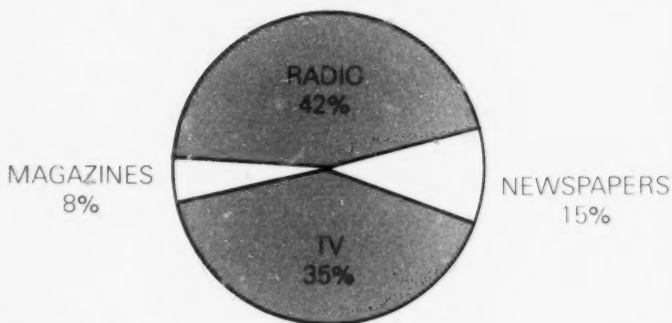
**MEDIA SHARE OF MIND
UPSCALE WORKING WOMEN**

**Average % Distribution of Time Spent With
4 Media Daily by Women With Incomes of \$20,000 or more**



**MEDIA SHARE OF MIND
PROFESSIONAL/MANAGERIAL MALES**

**Average % Distribution of Time Spent With 4
Media Daily by Professional/Managerial Males
With Incomes of \$20,000 or more**

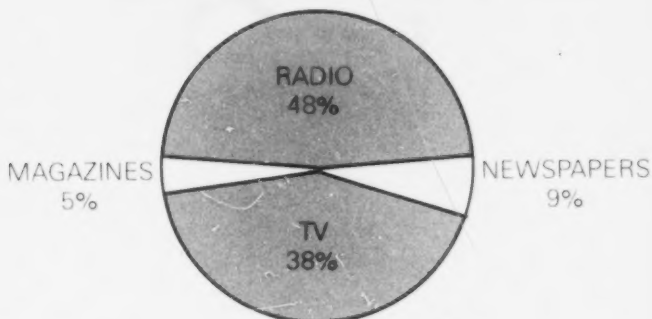


RADIO: MAJOR FORCE WITH YOUNGER CUSTOMERS

High school and college students spend more time with Radio than any other medium.

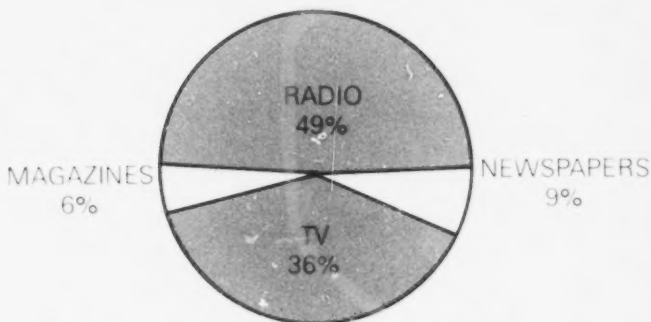
MEDIA SHARE OF MIND

AVERAGE % DISTRIBUTION OF TIME HIGH SCHOOL
STUDENTS SPEND WITH 4 MEDIA DAILY



MEDIA SHARE OF MIND

AVERAGE % DISTRIBUTION OF TIME COLLEGE
STUDENTS SPEND WITH 4 MEDIA DAILY



Average Daily Time Spent With Major Media

	High School Students	College Students
Radio	3'30"	2'45"
Television	2'45"	2'00"
Newspapers	38"	31"
Magazines	23"	21"

15.

RADIO'S SELECTIVITY TARGETS ALL MARKET SEGMENTS

PERCENT REACHED BY RADIO AND TIME SPENT LISTENING DAILY

Adults 18+	Weekly Reach	Average Weekday Time Spent
Adults in Multi-Income Households	99.2%	3'25"
Suburban Dwellers	95.9	3'17"
Singles (never married)	95.7	3'37"
Home Owners	95.6	3'08"
Engaged Adults	94.9	3'21"
Urban Dwellers	95.0	3'25"
Movie Goers	96.5	3'32"
Fast Food Restaurant in past 6 months	96.7	3'18"
Credit Card Users in Past Month	97.0	3'12"
Drove 15,000 miles or more last year	97.1	3'21"
Shopped Sears in past 3 months	97.2	3'17"
Shopped J.C. Penney in past 3 months	96.4	3'14"
Shopped Montgomery Ward in past 3 months	95.8	3'18"
Domestic Air Travel in past year	97.3	3'07"

PERCENT REACHED BY RADIO AND TIME SPENT LISTENING DAILY

Women 18+

	Weekly Reach	Average Weekday Time Spent
Spend \$81 + in average week for groceries	97.7%	3'52"
Bought any blouses/shirts in past year	97.6	3'12"
Bought any dresses in past year	96.5	3'13"
Bought any jeans in past year	98.2	3'27"
Bought any slacks in past year	97.7	3'21"
Acquired precious jewelry in past year	98.5	3'24"
Home remodeled in past year	99.0	3'36"
Go to beauty shop once a week	97.0	3'19"
Use perfume once a day or more	96.7	3'48"

PERCENT REACHED BY RADIO AND TIME SPENT LISTENING DAILY

Men 18+

	Weekly Reach	Average Weekday Time Spent
Bought any dress shirts in past year	95.6%	3'25"
Bought jeans in past year	98.9	3'31"
Rented car in past year	98.2	3'36"
Drank domestic beer in past month	97.7	3'36"
Own any securities (bought in past 2 years)	98.5	3'34"
Bought new regular radial tires for passenger car last year ...	99.1	3'24"
Responsible for upkeep of car	96.6	3'13"
Took business trip in past year (domestic)	99.6	3'30"
Use after-shave lotion once a day or more	96.6	3'28"
Used cologne in past week	97.0	3'37"

16. WORKING WOMEN LISTEN TO RADIO 3 HOURS AND 48 MINUTES A DAY

Working women are more affluent and buy more than their non-working counterparts.

- Some **40.6** million adult women work.
- **61%** of Women **20-64** are in today's labor force.
- Working women are expected to reach **51** million in 1990, an increase of **133%** since 1960.

Working Women

	% Reached Weekly	Avg. Daily Time Spent
Radio	97.9%	3'48"

RADIO REACHES MORE FULL-TIME WORKING WOMEN THAN NEWSPAPERS ON AN AVERAGE WEEKDAY

Radio	83%
Newspapers	72 %

RADIO LEADS TV WITH FULL-TIME WORKING WOMEN

	% Reached Weekly	Avg. Daily Time Spent
Radio	98.3%	3'54"
Television	91.0%	3'37"

17.

UPSCALE MALES LISTEN 3 HOURS AND 31 MINUTES A DAY

Professional/Managerial Males represent a large and highly lucrative advertising target audience.

- **24%** of adult men are employed in either professional or managerial white collar occupations.
- **47%** have a household income of \$25,000 or more annually.
- **52%** have graduated from college.

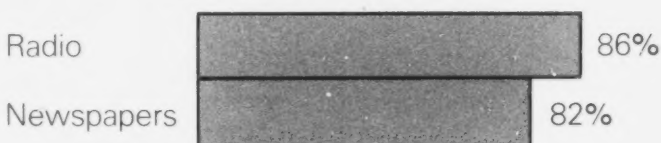


86% of Professional/Managerial Males listen to Radio on an average weekday

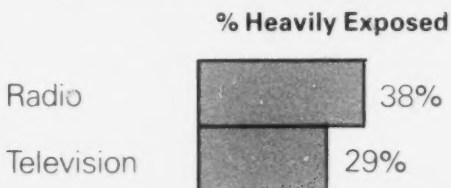
38% of Professional/Managerial Males are heavy Radio listeners.

Professional/Managerial Males listen to Radio **3 hours 31 minutes** on the average weekday

RADIO REACHES MORE PROFESSIONAL/ MANAGERIAL MALES THAN NEWSPAPERS ON AN AVERAGE WEEKDAY



31% MORE PROFESSIONAL/MANAGERIAL MALES ARE HEAVILY EXPOSED TO RADIO THAN TV



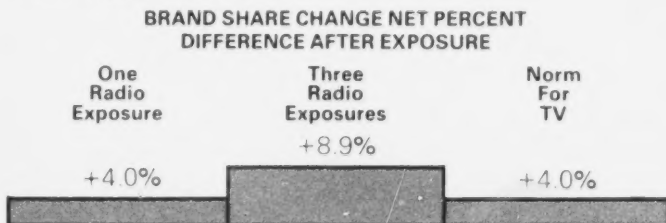
18.

RADIO'S IMPACT DOCUMENTED IN SERIES OF STUDIES

Copy test scores are used as a gauge of the relative strength of alternative message executions within a medium. These scores are also often interpreted as an index of relative media values across media, provided that the techniques used are similar. Below are six demonstrations that Radio delivers impact levels close to television. The studies were done using different methods and therefore the norms (averages) are very different. These six studies were done by (1) Schwerin; (2) Gallup & Robinson; (3) Radio Recall Research; (4) NeuroCommunication Laboratories; (5) McCollum/Spielman; and (6) Tele-Research.

(1) THEATER TEST Schwerin Research Co.

One pre-testing survey sponsored by RAB was conducted by Schwerin Research Co. using the same technique that is still being employed by McCollum/Spielman and Audience Studies, Inc. today. Women were asked to a theater on the pretext of previewing a TV program and were exposed to Television and Radio commercials. One exposure to a Radio commercial was able to improve the "brand share" of a product by 4.0%. This was exactly on target with the TV norm for one exposure in that product category. Significantly, however, a test of three exposures to a Radio commercial, *which is comparable to the cost of one TV exposure*, improved the product's brand share by more than twice as much, to 8.9%.

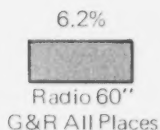
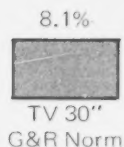


(2) ON-AIR RECALL MEASURE

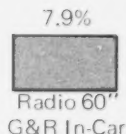
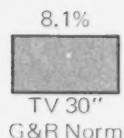
Gallup & Robinson, Inc.

In on-air Radio commercial recall studies conducted by Gallup & Robinson, Inc. among adults 18+, average Radio recall scores proved again to be very close to TV norms — 77% as high as TV 30" norms. In-car Radio recall provided virtually the same recall as TV commercials.

RADIO RECALL THREE-QUARTERS THAT OF TV AT CONSIDERABLY LOWER COST



IN-CAR RADIO RECALL EQUIVALENT TO THAT OF TV



(3) SIMULATED ON-AIR RECALL MEASURE

Radio Recall Research

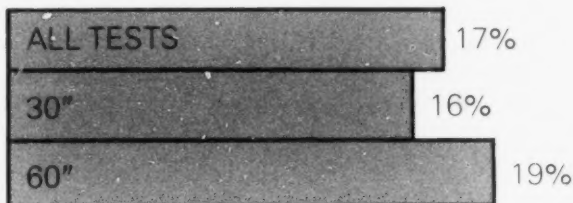
Radio Recall Research has the most extensive Radio copy testing program that RAB is aware of. The technique utilized is 24-hour proven recall. The respondent is exposed the day before, during an interview on leisure activities in which a "radio" was playing in the background. Here are the average results based upon 544 separate tests.

HOW CLOSE IS RADIO TO TV RECALL?

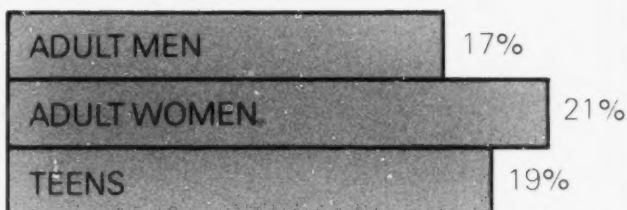


A widely accepted television commercial testing technique produces 24-hour recall norms of about 24% for a 30" commercial. This means that a Radio 60" generates scores that average 79% as high as a television 30" while costing far less.

**RADIO RECALL RESEARCH
PROVEN RECALL NORMS
JANUARY 1976-JANUARY 1979**



60" RADIO NORMS



(4) BRAIN WAVES TEST

NeuroCommunication Research Laboratories

A recent brain-wave study commissioned by RAB showed Radio commercials scored on a par with TV commercials for both measures — activation (Beta) and interest (CEP). Beta and CEP were measured in the left brain hemisphere (sequential, logical, intellectual tendencies) and the right brain hemisphere (emotional, creative, intuitive). The Radio scores were within the high evaluation region for brain-wave measures.

**AVERAGE SCORES FOR PAIRED
RADIO/TV COMMERCIALS**

	Tv	Radio	Index*
BETA (Activation)	58	61	105
Right	59	61	103
Left	57	61	107
CEP (Interest)	56	56	100
Right	57	54	95
Left	55	58	105

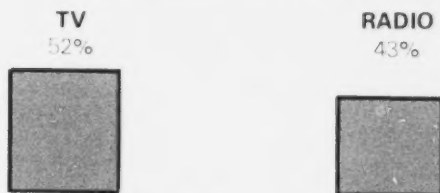
*** Base-Tv**

(5) THEATER TEST

McCollum/Spielman & Company, Inc.

Audiences gathered for regular TV tests provide the sample for this technique. Respondents first hear the test Radio commercial along with a control commercial in a special short Radio show. After a TV program, the Radio awareness data are collected as well as motivation and attitude measures. Normative data based on 488 tests show that Radio commercials are 83% as effective as television in creating brand awareness.

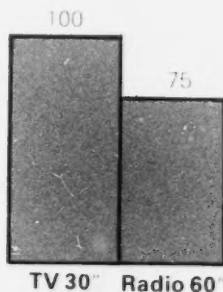
BRAND AWARENESS SCORES



(6) COUPON REDEMPTION TESTS

TeleResearch, Inc.

Tests are conducted in mobile units at actual supermarkets and drug stores with a control and test sample. Respondents in the test sample are exposed to five commercials for non-competitive products before entering a store to shop. All respondents receive a booklet of cents-off coupons before they enter the store. Performance criteria are developed from a TR Selling Effectiveness score which is a relative index of coupon redeemers from the test and the control sample. On the average TeleResearch has found the rate of product purchase after a 60 second Radio commercial is 75% of that generated by a 30 second TV commercial.



19.

RADIO: SUPPORT FROM RANGE OF ADVERTISERS

TOP 15 NATIONAL SPOT RADIO ADVERTISERS - 1978

1. Chrysler Corp.	\$27,668,000
2. General Motors Corp.	20,202,000
3. Anheuser-Busch, Inc.	12,315,000
4. Nissan Motors (Datsun)	7,834,000
5. Ford Motor Co.	6,473,000
6. Coca-Cola Co.	6,427,000
7. Fotomat, Inc.	5,968,000
8. Pepsico, Inc.	5,638,000
9. Levi Strauss & Co.	5,616,000
10. Delta Airlines	5,614,000
11. United Airlines	4,842,000
12. General Mills, Inc.	4,824,000
13. American Telephone & Telegraph	4,800,000
14. Continental Airlines	4,558,000
15. Carling National Breweries, Inc.	4,409,000

TOP 15 NETWORK RADIO ADVERTISERS - 1978

1. Sears Roebuck & Co.	\$ 6,237,000
2. Smithkline Corp.	5,939,000
3. General Motors Corp.	4,998,000
4. Wm. Wrigley Co.	3,875,000
5. Schering-Plough, Inc.	3,624,000
6. American Home Products	3,454,000
7. Sterling Drug, Inc.	3,410,000
8. Cotter & Co. (True Value Hardware)	3,211,000
9. Warner Lambert Co.	2,679,000
10. Anheuser-Busch, Inc.	2,673,000
11. American Telephone & Telegraph	2,672,000
12. Kraftco Corp.	2,570,000
13. JC Penney Co., Inc.	2,183,000
14. Morton-Norwich Products, Inc.	1,980,000
15. Hartz Mountain Corp.	1,947,000

**NATIONAL RADIO ADVERTISERS
RANKED BY CATEGORY
(1978)**

Category	Spot	Network	Total
1. Food Products	16.6%	8.4%	15.3%
2. Automotive	15.0	8.8	14.1
3. Travel & Shipping	9.7	2.3	8.6
4. Beer, Ale, Wine	9.2	4.2	8.4
5. Consumer Services	5.7	7.4	5.9
6. Drug Products	2.7	19.2	5.2
7. Apparel	3.5	1.1	3.1
8. Soft Drinks	3.6	—	3.1
9. Cosmetics, Toiletries	3.0	3.6	3.1
10. Confections	2.4	6.5	3.0
11. Gasoline & Oil	3.0	2.1	2.8
12. Agricultural, Garden	3.2	0.3	2.7
13. Building, Hardware, Paint	1.7	3.8	2.0
14. Amusements	1.8	1.7	1.7
15. Radio-TV, Records, Music	2.0	0.2	1.7
16. Home Furnishings, Appliances	1.2	2.4	1.4
17. Publications	0.9	2.1	1.1
18. Pet Products	0.6	2.7	0.9
19. Soaps, Cleansers, Detergents	0.7	1.9	0.9
20. Cigars, Tobacco Products	0.2	1.7	0.4
21. All Others	13.3	19.6	14.6

20.

RADIO'S REVENUES AT BETTER THAN \$3 BILLION IN 1979

RADIO REVENUES
... UP 381% SINCE 1960
(IN MILLIONS OF DOLLARS)

YEAR	Spot	Local	Network	Total
1960	\$208.0	\$ 401.6	\$ 44.9	\$ 654.5
1961	205.6	397.7	47.7	651.0
1962	218.2	434.2	44.9	697.3
1963	231.0	465.0	51.5	747.6
1964	244.1	504.2	54.0	802.3
1965	261.3	553.0	54.3	868.7
1966	292.6	607.6	57.4	957.7
1967	298.3	641.2	58.2	997.6
1968	342.2	733.4	54.7	1,130.4
1969	349.6	799.9	50.9	1,200.4
1970	355.3	852.7	48.8	1,256.8
1971	378.0	954.6	55.1	1,387.7
1972	384.3	1,098.4	65.0	1,547.7
1973	382.3	1,205.4	59.4	1,647.1
1974	386.8	1,308.8	60.3	1,755.9
1975	416.3	1,403.3	72.7	1,892.3
1976	494.6	1,639.3	92.2	2,226.1
1977	521.3	1,873.1	118.1	2,512.5
1978	592.1	2,192.7	126.4	2,911.2
1979*	645.0	2,368.0	136.0	3,149.0

*Estimated

SOURCE APPENDIX

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- 1 Set Count and Set Sales data from Electronic Industries Association (EIA) and RAB Research Dep't *
- 1 1979 expenditures on radio sets — RAB estimates based on EIA, Merchandising Magazine Research Dep't., Automotive News Almanac.
- 1 1960-69 and 1970-79 set sales — EIA. Expenditures — RAB estimates as above.
- 2 Radio Set Sales Mix — RAB calculations based on EIA.
- 2 Commercial Stations On The Air — FCC, Dec. 31st of each year.
- 3 Radio Households — figure for 1952 estimate by NAB-BMB. Figure for 1962 based on R. H. Bruskin Associates study. Figure for 1980 based on RADAR, average of 1976-1979 Fall reports, special tabulation **.
- 3 Average household has 5.7 sets — based on U.S. Census estimate of total households and RAB estimate of set count *.
- 3 72% of persons have 4 or more Radio sets — RADAR, Fall 1979 report, special tabulation.
- 4 Where Home Radios Are Located — NAB sponsored survey conducted by the Univ. of Denver and Gallup, 1968.
- 4 Homes with Clock Radios — 1976 estimate by leading appliance manufacturer *.
- 4 Battery Set Sales — 1952 figures — Merchandising Week Jan. 1953 statistical report and EIA, 1979, EIA.
- 5 Radio Sets In Autos — RAB estimates based on auto registrations from U.S. Dep't. of Transportation, SRDS, and Automotive News, 1953, 1963, 1980.
- 5 98% of Company-Owned Cars — Nat'l. Association of Fleet Administrators survey, 1978.
- 5 Automobiles In Constant Use — 86% of commuters: U.S. Census Bureau, 1975; 90% of shopping visits: Response Analysis Corp., 1974; 84% of intercity travel: U.S. Census of Transportation, 1977.
- 5 Auto Radio reaches nearly 7 out of 10 — RADAR, Fall 1979 report.
- 6 Radio's Cumulative Audience Reach by Place of Listening — RADAR, Fall 1979 report. Mon-Sun: 2.4 hours.
- 7 Radio's Cumulative Audience Among A Range of Demographic Groups — RADAR, Fall 1979 report. Average daily time spent — RAB estimates based on RADAR, Fall 1979 report.
- 8 Radio's Weekend Reach, Time Spent Listening — RADAR, Fall 1979 report. Weekend Reach by Season — ARB, average of 7 markets measured four times a year, metro survey areas, 1979.
- 9 Summer Radio — ARB, average of 7 markets, July-August 1979, metro survey areas. Reach, time spent listening based on Monday-Sunday. Shares by location and day part based on Monday-Friday.

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- 10 Radio Audiences by Station - ARB, coverage of 10 markets made
over 4 times a year, metro figures are as of 7/29 (Metropolitan AM
Mid.)
- 11 96% of Adults are Satisfied - Radio Today - NAB-sponsored sur-
vey, 1968
- 11 Radio Delivers The News - First - ORC Caravan survey, July 1975,
for CBS Radio
- 11 Radio Is Primary News Source - R.H. Bruskin Associates, Dec.
1972, for CBS Radio
- 11 Radio Tops Other Major Media - Trendex, July 1977, New York
area survey
- 12 Radio Leads Other Major Media In Daily Weekly Reach - Radio
RADAR, Fall 1979 report. TV - Special Nielsen National Television
survey, 1977. Newspapers - Simmons Market Research Bureau,
1978-79
- 13 Radio's Audience Growth - RADAR, 1967 through 1979. RADAR
1967 through 1974 was done in the spring, 1975 in the fall, spring
and fall reports were available in 1976 through 1979. Figures used
are combined reports.
- 14 Media Cost-Per-Thousand Indices - McGinn-Enckson, Inc. Net-
work and Spot TV Radio averaged by RAB Research Dept.
- 15 Radio Leads TV Through Daytime - Radio - RADAR, Fall 1979
report. Hourly averages based on avg. quarter hours within each
hour. TV - Nielsen, average of Feb.-Oct. 1979 reports from TVB.
Hourly avg. based on avg. half hours within each hour.
- 16 Men 18-49, Upper Income Adults - Tabulations from ARMS II, Fall
1974, New York and Los Angeles ADI's
- 17 Working Women 18-49 - Tabulations from ARMS II, Fall 1974,
New York ADI
- 18 Radio's Advantages Over TV for Teens - Average of 6 metro
markets. Radio budgets equal to typical retail one-week TV
budget in each market, using published rates. Audience data
Radio - ARB, April-May 1979. TV - ARB, May 1979.
- 18 Radio's Advantages over TV for Men and Women 18-34, 25-54 -
same sources as for teens above
- 19 Radio Targets The Light TV Viewer - RADAR, Fall 1979 report
- 20 Radio 58% Ahead of Newspapers - Newspapers - Newspaper
Readership Project, March 1977, conducted by Audits & Surveys
for Newspaper Advertising Bureau. Radio - RADAR, Fall 1979
report
- 20 Average Daily Reach 1979 vs. 1970 - Radio - Fall 1979 and Spring
1970 RADAR reports. Newspapers - Simmons Market Research
Bureau 1978-79 and 1970 reports
- 21 Grocery Shoppers - ARMS II, Fall 1974, Los Angeles ADI
- 21 Radio's Advantage Over Newspapers for Men and Women 18-34,
25-54 - Average of 6 metro markets. Audience Data - Radio -
ARB, April-May 1979. Newspapers - Readership Data from "Local
Newspaper Audiences," March 1978. Circulation for papers with-
out readership data from Audit Bureau of Circulations. Readers-
per-copy from national data from Simmons 1977-78; retail Starch
(avg. of the highest noting scores for full-page ad. Rates - Radio -
SRDS. Newspapers - latest local rate cards
- 22 Metro Newspaper Circulation Has Not Kept Pace - Households
and Population - Sales & Marketing Management Survey of Buy-
ing Power, 1974 vs. 1971. Circulation - ABC, Sept. 30, 1978 vs.
Sept. 30, 1970. Line-Rates - SRDS, Dec. 1978 vs. Dec. 1970.
- 22 Weekly Newspaper Rates - National Directory of Weekly News-
papers, 1979 vs. 1970
- 22 Ads Are 62% of Content But Get Only 18% of Reading Time -
CBS five-market study, 1971
- 23 Radio Newspaper Daily Reach - Simmons Market Research
Bureau, 1978-79

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- 23 Even Full Page Ads - Starch INRA Hooper, average of 32 newspaper surveys 1970-76.
- 24 Media Share of Mind - Adults 18+ - 18-49 - Radio: RADAR, Fall 1979 report. TV: Nielsen Audience Demographics Report, avg. of Feb., May, July-Nov. 1979 from TvB, Newspapers and Magazines. Ted Bates Instant Media Facts, 1978-79.
- 25 Upscale Working Women, Professional Managerial Males - The Media Book, 1978 (Published by Media Industry Newsletter)
- 26 High School and College Students - Gilbert Youth Research, 1975.
- 27 Radio's Selectivity - Adults 18+ - Simmons Market Research Bureau, 1978-79.
- 28 Percent Reached By Radio and Time Spent Listening Daily - Women and Men 18+ - Simmons Market Research Bureau, 1978-79.
- 29 Working Women - Size of market - U.S. Dep't. of Labor, 1979. Percent Listening Weekly - RADAR, Fall 1979 report. Daily Time Spent - RAB estimate based on RADAR, Fall 1979 report. Radio-Newspaper comparison - Simmons Market Research Bureau 1978-79. Radio-TV comparison - Radio: RADAR, Fall 1979 report. TV: Nielsen 1977 (weekly reach); Nielsen Audience Demographics report, April 1979 (time spent viewing).
- 30 Professional Managerial Males - Simmons Market Research Bureau, 1978-79.
- 31 Theater Test - Schwerin - Schwerin Research Corp., April-May 1969.
- 32 On Air Recall Measure - Gallup & Robinson Inc., May 1973.
- 33 Simulated On Air Recall Measure - Radio Recall Research, Jan. 1976, Jan. 1979.
- 33 Brain Wave Study - NeuroCommunication Research Laboratories, 1979.
- 34 Theater Test - McCollum Spielman & Company, Inc. through June 1979.
- 34 Coupon Redemption Tests - TeleResearch, Inc., 1978.
- 35 Top 15 National Spot and Network Radio Advertisers - Radio Expenditure Reports, 1978.
- 36 Categories - Spot, RER, 1978. Network, RER BAR, 1978. Total combined by RAB Research Dept.
- 37 Radio Revenues - 1960-1978 - FCC, 1979 - RAB estimate.

*All set status figures as of Jan. 1, each year.

**all RADAR data - © Statistical Research, Inc. (Used by permission).